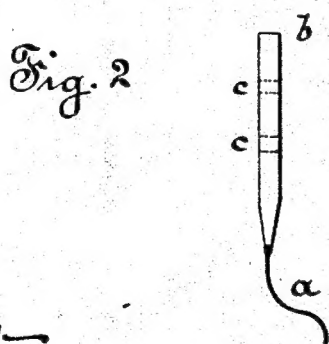
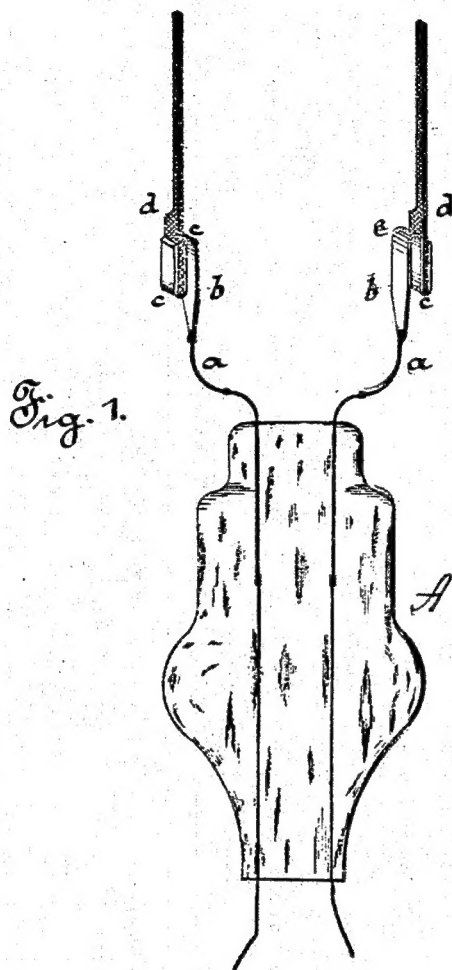


(No Model.)

T. A. EDISON.  
INCANDESCENT ELECTRIC LAMP.

No. 293,434.

Patented Feb. 12, 1884.



WITNESSES:

D. D. Mott  
W. W. Seely

INVENTOR:

T. A. Edison  
BY Rich<sup>d</sup>. H. Dyer.  
ATTORNEY.

# UNITED STATES PATENT OFFICE.

THOMAS A. EDISON, OF MENLO PARK, NEW JERSEY, ASSIGNOR TO THE  
EDISON ELECTRIC LIGHT COMPANY, OF NEW YORK, N. Y.

## INCANDESCENT ELECTRIC LAMP.

SPECIFICATION forming part of Letters Patent No. 293,434, dated February 12, 1884.

Application filed August 7, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS A. EDISON, of Menlo Park, in the county of Middlesex and State of New Jersey, have invented a new and useful Improvement in the Manufacture of Incandescent Electric Lamps, (Case No. 377;) and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

I have found that in the manufacture of incandescent electric lamps the best mode of attaching the incandescent conductor to the wires leading thereto is to electroplate the joint or union between them. In order to perform this operation, it is necessary to first attach the wires to the enlarged end of the carbon by some temporary mechanical means. To furnish convenient and efficient means for this purpose is the object of my invention. My arrangement is as follows: The copper inner extremities of the "leading-in" wires are formed into long flat strips, whose width should be about equal to that of the enlarged ends of the carbon. Each strip is then bent over twice lengthwise on itself, and the enlarged carbon ends are inserted in the upward bend. The sides of the strip may be pressed down upon the carbon as closely as is necessary to hold it. The joint is then electroplated, preferably in the manner shown in my previous application, (Serial No. 24,440.)

The accompanying drawings illustrate my invention.

Figure 1 is a view showing the carbon held as above described, and Fig. 2 a view of the flat copper extremity before bending.

A is the supporting neck or stem of an incandescent electric lamp, and *a a* the copper terminals, having their ends formed into or attached to flat strips *b b*. Each of these strips is bent back twice upon itself at points *c c*. The enlarged ends *d d* of the carbon are placed in the upward bends, as shown, and there held during the operation of electroplating.

What I claim is—

1. In an incandescent electric lamp, the device for holding an end of the carbon during the process of electroplating, consisting of a flat piece of copper bent twice lengthwise upon itself, substantially as set forth.

2. The leading-in wires of an incandescent electric lamp, having their inner extremities formed into or attached to flat metal strips, each bent twice lengthwise upon itself, substantially as and for the purpose set forth.

This specification signed and witnessed this 5th day of December, 1881.

T. A. EDISON.

Witnesses:

H. W. SEELY,  
WM. H. MEADOWCROFT.